**Title: Orientation Of Earth, Sun, and Moon**

**Grade Level: 8th**

**Course: General Science**

**Lesson Overview**

In this lesson the students will be observing the orbit of the earth about the sun and the orbit of the moon about the earth. It will involve paths of the planet and its moon and the relative sizes between the objects. It will also involve the rotation of the earth and the moon.

**Learning Performances**

In this lesson I want the students to use their own problem solving skills and observations of the models being used to figure out that the earth does in fact move around the sun and the moon moves around the earth. With this I eventually want the students to understand that the sun is the center of the universe and that all objects in our universe move around the sun in some form or another.

**Links to Standards or Benchmarks**

**ESS2 (7-8) -8**  
**Students demonstrate an understanding of temporal or positional relationships between or among the Earth, sun, and moon by …**  
**8a using or creating a model of the Earth, sun and moon system to show rotation and revolution.**

**Materials Needed**

-Light

- Basketball

- Baseball

- Markers

- Poster Board (Cheap Large Sheet of Paper for them to Draw On)

**Time Required**

1. minutes

5 min- Intro (Ask: How are the Sun, Moon, and the Earth set up in space?)

15 min- Have them try and draw a picture in groups.

10 min- After having them work in the groups we will come together as a class and have a discussion of what everyone has found.

15 min- Demonstration using the balls and the light to show the motion of the earth and the moon.

5 min- Clean-up

**Instructional Sequence**

**Introducing the lesson**

*How will you introduce the lesson to the students? How will you motivate and capture students’ attention? How will you find out about students’ prior knowledge? How will you engage students in lesson? How will you establish a meaningful purpose for each activity in the lesson?*

**Instructional Activities**

*For each activity, describe: What will you do, write, and say to promote student thinking? What will students read, do, write, and say to understand and apply lesson's concepts?*

**Concluding the Lesson**

*How will you reinforce purpose of the lesson and unit? relate lesson to issues in society and to student lives? How will you bring the lesson together. What the main idea of the lesson? How is each activity related to what students were to learn?*

**Assessing Student Understanding**

*How will you determine if students met the learning performances?*

**Cautions**

*Are there any dangerous or hazardous components of the activities associated with the lesson? What precautions need to be taken?*

**Sources**

*Where did you get the idea for this lesson. List references used to develop lesson plan (e.g. curriculum materials, Internet resources). Use APA format.*

**Teaching Resources**

*Include links to Powerpoint files, Word files, and/or pdfs for all instructional materials for this lesson, including handouts, worksheets, etc.*